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1   UNITED STATES DISTRICT COURT
                     DISTRICT OF MASSACHUSETTS
2

3   * * * * * * * * * * * * * * * * *
      *SKYLINE SOFTWARE SYSTEMS, INC.   *
4   Plaintiff   *   CIVIL ACTION
               vs.   *   No. 04-11129-DPW
5   *
      *KEYHOLE CORPORATION,   *
6   and GOOGLE, INC.   *
               Defendants   *
7   * * * * * * * * * * * * * * * * *

8

9

10   BEFORE THE HONORABLE DOUGLAS P. WOODLOCK
                   UNITED STATES DISTRICT JUDGE
11   HEARING re CLAIM CONSTRUCTION
                        April 27, 2005
12

13   APPEARANCES:

14   MINTZ, LEVIN, COHN, FERRIS, GLOVSKY & POPEO, PC,
      (By H. Joseph Hameline, Esq., Gerri Haight, Esq., and
15   Ibrahim Hallaj, Esq.) One Financial Center, Boston,
      Massachusetts 02111, on behalf of Plaintiff
16
           FENWICK & WEST, LLP, (By Darryl M. Woo, Esq., and
17   Robin Reasoner, Esq.) Silicon Valley Center, 801
      California Street, Mountain View, , California
18   94041-2008, on behalf of Defendants

19

20   Courtroom No. 1
                                      1 Courthouse Way
21   Boston, Massachusetts 02109

22
                           JAMES P. GIBBONS, RPR/RMR
23   Official Court Reporter
                           1 Courthouse Way, Suite 7205
24   Boston, Massachusetts 02210
                                 (617) 428-0402
25

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1   P R O C E E D I N G S

2   THE CLERK: The case Skyline Software versus

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3   Keyhole Corporation, et al, Civil Action No. 04-11129.

4   THE COURT: Well, I am prepared to give you a

5   good deal more control over this hearing than I ordinarily

6   would, and so I think I will simply hear first from the

7   plaintiffs and then from the defendants.

8   MR. WOO: Very well, your Honor. Thank you.

9   MR. HAMELINE: Thank you, you Honor. Joseph

10   Hameline for the plaintiff, your Honor. With me is Gerri

11   Haight and Ibrahim Hallaj.

12   We have a PowerPoint. We've also handed to you the

13   printout of the PowerPoint, which I think is helpful to walk

14   through these issues. It contains, just by general

15   reference, some introductory materials, a little bit of the

16   case law discussion that I am going to move through very

17   quickly, and then the definitions that each party has

18   submitted for these various claim terms.

19   We have, "we" being the plaintiffs, have submitted

20   in particular -- I'm going to discuss ten claim terms.

21   Those claims terms, as you will see in claim 1 and claim 13,

22   which are representative system method claims and apparatus

23   claims, contain the various definitions.

24   THE COURT: I'll tell you, there's this

25   characterization of "representative." They are the claims

3

1   in dispute in this lawsuit. If other claims are put in

2   dispute, there will be another lawsuit. Understood?

3   MR. HAMELINE: Absolutely.

4   MR. WOO: I sorry, your Honor. I couldn't

5   hear you.

6   THE COURT: If other claims are put in

7   dispute, there is going to be another lawsuit. These are

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8   the claims in dispute. I'm not dealing with the idea that

9   there are what are call representative claims. This is what

10   you put in dispute. You're the plaintiff. That's where it

11   is.

12   MR. HAMELINE: Absolutely. Yes.

13   What I'm trying to graphically present, for example

14   in claim 1 and claim 12, is that the claim -- the ten claims

15   that we're presenting to you cover the entire claim. The

16   elements cover the entire claim. And that's what that

17   graphical representation is in claim 1 and claim 12. The

18   other claims, the method claims and the apparatus claims,

19   don't differ in any significant fashion in terms of the

20   claim terms that are listed.

21   THE COURT: Then there is going to be a

22   lawsuit about infringement of claim 1 and claim 12.

23   MR. HAMELINE: No. It's going to be

24   infringement about the claims, which is -- as soon as we see

25   any discovery about their product --

                                                              4

1   THE COURT: Wait a minute.

2   This thing about seeing discovery about their

3   product, you brought the lawsuit. You had a Rule 11 basis,

4   presumably, for believing that they engaged in some form of

5   infringement.

6   MR. HAMELINE: Absolutely.

7   THE COURT: So you do not need discovery to

8   find out what claims you would like to assert in this case.

9   MR. HAMELINE: Actually, we do.

10   THE COURT: Well, actually, you won't. You

11   will be able to litigate anything that arises out of claim 1

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12   and claim 12.

13   MR. HAMELINE: I'm not sure that I understand

14   your Honor, since the other claims, the other method claims,

15   are very similar to claim 1. So it's not that we have claim

16   construction issues that are going to differ from claim 1.

17   THE COURT: They may not.

18   MR. HAMELINE: So I don't think -- I am not

19   sure I --

20   THE COURT: You are getting my claim

21   construction on these claims. To the degree that you

22   believe that you have infringement of these claims in this

23   language, you may proceed in this case, but we're not going

24   to have some further development in this case of other

25   theories.

                                                              5

1   MR. HAMELINE: But, your Honor, there seems --

2   THE COURT: Let's proceed.

3   MR. HAMELINE: Okay. We'll proceed.

4   THE COURT: But I'll tell you something. I

5   was not particularly intrigued by the repetitive motions for

6   reconsideration of something that was fully considered, and

7   I am not about to let a plaintiff in a case bring the

8   lawsuit and do it for purposes of engaging in discovery

9   about something that Rule 11 means they should know enough

10   about when they bring the lawsuit. So the way in which I am

11   going to police it is that if you develop additional

12   disputes, they are going to be brought in another lawsuit.

13   We are going to be dealing in this lawsuit with what it was

14   that was structured and framed by the claim construction

15   here.

16   MR. HAMELINE: Maybe I'm not being -- skipping

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17   over something here.

18   The claim terms that we're construing here are the

19   same claim terms in claims 1 through 24. It's not that

20   there are different claim terms in claims 2, 3, 4, 5 and 6

21   than there are in claim 1. They're the same claim terms.

22   So rather than exercise some word processing function and

23   spit out the same thing with respect to each claim, we're

24   simply stating that Representative Claim 1 contains all the

25   claim terms that are in dispute in claims 1 through 24.

6

1   THE COURT: Those are the ones that are going

2   to be litigated here. I am telling you right now, those are

3   the ones that are going to be litigated. You do not develop

4   a bit of discovery and say, Oh, by the way, there is a

5   subsidiary claim or a dependent claim that I would like to

6   pursue too. Not in this litigation. You can pursue it in

7   some other litigation.

8   MR. WOO: So to clarify, your Honor --

9   THE COURT: "So to clarify?" Stop it.

10   MR. WOO: I'm sorry, your Honor.

11   THE COURT: I really -- I have to say, that

12   with respect to this kind of litigation of patent cases,

13   that this constant wheedling by counsel is not productive.

14   I have indicated very clearly that I am going to try to

15   construe these claims, that they are going to define the

16   range of this litigation, and we will go from there. But

17   periodically popping up on both sides and saying, "to

18   clarify," which is to say, "I would like you to ratify

19   something that I am going to try to sneak into the record,"

20   is not something I am going to accept. So let's be clear

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21   about this, shall we?

22   MR. WOO: Very well, your Honor.

23   THE COURT: I tried to be clear at the status

24   conference. I tried to be clear here. We will get this

25   litigated, but we are not going to get it litigated with the

7

1   kind of elaborate gobbet that patent lawyers think is part

2   of the practice of law.

3   MR. WOO: Very well, your Honor.

4   THE COURT: All right. Let's proceed.

5   MR. HAMELINE: Your Honor, I don't know if

6   it's easier for you to follow it here or in the document.

7   We can do it both ways, and if one works easier for you, you

8   let me know.

9   Let's go to the next slide.

10   This just briefly provides an overview of the '189

11   patent, so we can put in context the claims and the

12   discussion.

13   It relate to methods and apparatus for streaming

14   terrain data from the server over the Internet to a local

15   computer. That's the sum and substance of this.

16   It overcame limitations in the prior art by

17   allowing users to download in a method of lower resolution

18   to higher resolution, streaming data to overcome what were

19   noted in the prior art in the --

20   THE COURT: I think I should tell you, while I

21   have given you the range to develop the case, I think I have

22   a general overview. Now I want to get focussed on

23   particular definitions.

24   MR. HAMELINE: I just want -- sure.

25   One comment is that in the -- I think it's column 1

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1   of the '189 patent, it talks about computer rendering as

2   known in the prior art, and computer rendering is not

3   particularly a topic of this patent. It is certainly

4   relevant to the patent. It's discussed here. It's part of

5   some of the specification and claims, but the algorithms and

6   the details of computer rendering that are referenced in the

7   patents that are references of prior art.

8   THE COURT: But you are asking me to construe

9   the term "renderer," aren't you?

10   MR. HAMELINE: Yes, absolutely, in the context

11   of downloading, et cetera. Not in the context of the

12   algorithms that are used to do what it does.

13   THE COURT: All right.

14   MR. HAMELINE: So what we have is, if this is

15   helpful, can we play this video very quickly to put this in

16   context to show you what the data blocks look like when they

17   go over --

18   THE COURT: Yes.

19   MR. HAMELINE: See, we've -- I am not sure

20   whether we're playing Skyline's or Keyhole's. They're

21   essentially identical. That is Skyline's, you know, if you

22   will, the highest -- or lowest resolution presentation of

23   the earth, and then as it proceeds, just kind of --

24   (Counsel conferred.)

25   MR. HAMELINE: I guess it's not going to play,

9

1   but essentially what it does is if you were in an airplane

2   or in a satellite, it zooms in, and it takes the topography,

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3   the geography, the satellite photo's image, incorporates

4   them, and begins to show you, as you move in, to portray

5   more and more detail. Those details, like a digital camera,

6   when you take a photo and you have a thumbnail, that then

7   sharpens up into the detailed print. It does the same

8   thing.

9   There it is.

10   (Videotape played.)

11   MR. HAMELINE: So you can see, as the data

12   blocks are resolving and they are being layered in, that it

13   will download additional data blocks and sharpen the image.

14   And this is, as discussed in the patent, this is

15   what was done on CD-ROM before.

16   This level of detail, in terms of a 3D geometry and

17   the satellite overview and the objects to be overlaid on

18   that, is something that takes an enormous amount of data and

19   is streamed, as you can see in this representation, streamed

20   fairly slowly, at some levels. As you get a larger

21   connection, it can be streamed faster and faster, but it

22   begins to tighten up as you can see the topography and the

23   elevation attributes here.

24   Why don't we go to the next slide.

25   This is Representative Claim 1. As you can see,

                                                            10

1   these are the claims that we are construing, and they cover

2   the claim -- if you look at Representative claim 12, which

3   is the apparatus claim, they are the same, essentially, ten

4   terms. They cover the claim when they're combined,

5   construed together, et cetera.

6   So that's the approach we've taken here. I would

7   submit that all the other claims are essentially the same.

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8   We are, obviously, not going to revisit that issue.

9   There really -- if you go to the key legal issues,

10   there are three points that are bantered back and forth

11   between the parties here. One is whether there is an

12   ordinary meaning based on what's laid out in the

'13   specification in terms of the use of the terms.

14   The other is whether the patentee is acting as his

15   own lexicographer in this case. Discussion of dictionary

16   definitions is something that we do, which are allowed as

17   long as they are not inconsistent with the intrinsic record,

18   and are often considered part of that intrinsic record; and,

19   third, claims are not limited to the preferred embodiments.

20   All fairly standard case law, the three principles, I would

21   say, which are the focus of the discussion here today.

22   The extrinsic evidence is disfavored unless there

23   is some inability based on the intrinsic record and the

24   dictionary definitions. There is no need to go to extrinsic

25   evidence. This is the issue of Professor Feiner and his

                                                        11

1   lengthy affidavit. There is no ambiguity referenced in

2   that. There is no purpose for the extrinsic evidence.

3   If we go to the next slide, you will see that there

4   is no reason for varying the terms of the specification --

5   or the understanding based on the specification, based on

6   the dictionary definitions, or based on the usage in the

7   claims.

8   Dr. Feiner doesn't offer a tutorial. He doesn't

9   offer a review of the prior art to provide and distill the

10   meaning of these terms for somebody of ordinary skill in the

11   art. He is, I think as we put it in the briefs, he's

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12   attempted to substitute his opinion for what is the exercise

13   here today, which is the Court's understanding and

14   interpretation of those claims.

15   If we turn to the first claim term -- and, your

16   Honor, I don't know -- I could walk you through the ten

17   claim terms and then have Google do the same, or whether you

18   would like to do them one at a time?

19   THE COURT: I think I would like to do them

20   one at a time.

21   MR. HAMELINE: Okay.

22   Let me start with "data block."

23   Skyline submits "data block" has its plain meaning.

24   Defendants state that in this case Skyline has

25   acted as its own lexicographer.

12

1   I would say that their argument appears to be more

2   appropriately addressed to the larger term, which is, data

3   blocks describing three-dimensional terrain.

4   Skyline, in contrast, looks at the term "terrain"

5   and says that it has acted as its own lexicographer in

6   connection with that word, and we're going to get to

7   terrain, obviously, in a second.

8   So Skyline's position, we submit, is based on the

9   consistent use of the term as information stored in the

10   computer, preferably compressed in a JPEG or other

11   compression method.

12   Column 8, lines 59 to 61 discusses this.

13   Simply put, defendant's proposed definition says

14   it's an image of a terrain area.

15   The claim refers to the data blocks described in

16   three-dimensional terrain.

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17   Data is not an image. Data is zeros and ones.

18   It's in a compressed format. It isn't the image there.

19   It's the image which is then interpreted and used by the

20   renderer to display the image.

21   THE COURT: Let me suggest a particular

22   definition that I have been thinking through, or trying to.

23   If I were to say that, A "data block" comprises the

24   information necessary to graphically render an image of all

25   or part of the terrain, including any additional features

                                                          13

1   overlaid thereto at a particular resolution level, what's

2   your response to that?

3   MR. HAMELINE: I don't think I disagree with

4   that, your Honor. I am not sure I follow all of it.

5   THE COURT: Does the defendant?

6   MR. WOO: I have no problem with that

7   definition, your Honor.

8   THE COURT: Okay.

9   So I think we can probably move on.

10   MR. HAMELINE: All right.

11   The second definition -- and, again, to go back to

12   the what I said first, the claims typically start with the

13   introduction, which then goes into comprising the steps, and

14   refers to data blocks describing three-dimensional terrain.

15   There is, obviously, an interplay between these two terms,

16   "data blocks" and "terrain."

17   Skyline's proposed definition is that it is the

18   physical features of an area, object or materials, such as

19   color attributes or an object, et cetera. There is a

20   discussion in the patent, particularly in column 16 just

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21   before the claims and also elsewhere, where the terrain that

22   is referenced, this three-dimensional terrain, is referred

23   to as real estate, as other virtual objects, real images,

24   atomic structures, other planets, et cetera, and what they

25   are teaching us here is you can use the same method for

14

1   streaming three-dimensional data, or for streaming data

2   which could apply and provide a three-dimensional rendering

3   to other objects, and all of those objects are termed

4   "terrain."

5   So that if you look at defendant's proposed

6   definition, it is features of an area of land or topology.

7   That would be a part of the definition. The larger

8   definition would be, It's the physical features of an area,

9   particularly the elevation attributes. The definitional

10   preposition in each and every one of the -- I think it's --

11   I won't say each and every one. Most of the uses of the

12   term "terrain" is three-dimensional terrain, and that's what

13   the patent focuses on. And to have three-dimensional

14   terrain, obviously you need elevation attributes.

15   THE COURT: Now let's focus on the question of

16   color attributes.

17   How do I reach color attributes --

18   MR. HAMELINE: Color attributes --

19   THE COURT: -- in construing the patent as it

20   exists now?

21   MR. HAMELINE: The color attributes in the

22   specification, there are references to elevation or altitude

23   attributes and color attributes and other objects.

24   The color attributes, if you think -- backing up

25   from this and moving into the language of the claim --

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15

1   thinking practically, the color attributes are typically the

2   satellite photograph of the area overlaid on the 3D from the

3   USGS --

4   THE COURT: But, more specifically, to reach

5   this definition, are you saying that what I do is I look at

6   the specifications and the specification calls it out,

7   that's not to include it in terrain? Is that essentially

8   what you are saying?

9   I think I understand, to some degree, what you're

10   trying to reach, but that is not my goal right now. The

11   question is what is it that the language and the patent,

12   specifically the specification, teach.

13   MR. HAMELINE: Right.

14   So our position is the specification defines the

15   term broadly, and in that broad definition is the more

16   expansive virtual image, which would include other objects

17   other than, you know, photographs of the earth, and would

18   also include the elevation attributes, the color attributes

19   of the objects, all of which are discussed in various

20   sections in the patent specification and referenced in our

21   brief.

22   THE COURT: So let me just hear briefly from

23   the defendant on that. It seems to me that your definition

24   of "terrain" is rather constricted here in light of the

25   specifications.

16

1   MR. WOO: Well, your Honor, if I could just

2   bring up our slide real quickly to show your Honor.

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3   They site to -- if I can bring up their slide.

4   They site to this column and line as their basis

5   for why color attributes are included, but the reference is

6   only to pixels which have those attributes, not to terrain.

7   "Terrain" is just simply the topography of the land, and

8   we've supplied a plain meaning dictionary definition of that

9   and so forth.

10   THE COURT: Yes, but the problem is how one

11   constructs it, and so they've referred to pixels as a way to

12   capture terrain; and if they do, then they're capturing

13   color attributes as well, aren't they?

14   MR. WOO: That's correct, except the patent

15   claim term is not "pixels." It's "terrain." They didn't --

16   you know --

17   THE COURT: Okay.

18   So I am construing what it is, what "terrain"

19   means, and in the context of this particular patent.

20   MR. WOO: Yes. That's the correct way to

21   approach it, your Honor.

22   It would be -- our belief is that the patent should

23   be read -- all the terms should be read in the context of

24   the patent, not just --

25   THE COURT: Okay.

                                                      17

1   So "terrain" is defined in somewhat -- not

2   defined --

3   MR. WOO: On --

4   THE COURT: -- understood in terms of,

5   particularly in this context, pixels?

6   MR. WOO: All I'm pointing out is that in this

7   particular instance the terrain is not referred to as having

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8   color attributes. It's the pixels that make up the image.

9   THE COURT: I am going to go back and forth

10   between you on this because this is one that I want to focus

11   a bit on.

12   Is it, Mr. Hameline, really column 8, lines 34 to

13   37, that I'm concerned with to come to the conclusion that

14   color is among the attributes that is encompassed by

15   terrain? Is there anything else?

16   MR. HAMELINE: Let me see what I've referenced

17   here.

18   MR. WOO: I have the language up on the

19   screen, your Honor, in case you want to see it.

20   THE COURT: Yes, I am looking at it from the

21   complaint.

22   MR. HAMELINE: Your Honor, I don't have that

23   other than initially in the patent there was a reference to

24   satellite imagery as one of the data points which is used in

25   constructing the terrain. Satellite imagery in this context

                                                              18

1   is the color attributes. In other words, you turn on the

2   color --

3   THE COURT: Well --

4   MR. HAMELINE: -- gray shading or color.

5   THE COURT: What I want to understand is is

6   this the language that you want me to draw upon to ascribe

7   color attributes to terrain, this language at 34 to 37?

8   MR. HAMELINE: That's correct, and the

9   reference to the satellite topography.

10   THE COURT: In the sense it says "airborne or

11   satellite cameras"?

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12   MR. HAMELINE: And actually there's a

13   reference earlier to satellite photography, which I can find

14   in a second, but there is that reference. It's the same

15   general context at the end of that statement that you see.

16   THE COURT: Now, from the defendant's point of

17   view, why shouldn't I give that kind of specificity to it?

18   The definition that you offer, features of an area of land,

19   topology, I suppose one could even say already encompasses

20   that as well, and somebody is going to ask me to construe

21   "topology."

22   MR. WOO: "Topography," I think is the word we

23   used.

24   THE COURT: I'm sorry.

25   Yes, it should be topography. Although I was

                                                             19

1   reading from the chart that the plaintiff put together and

2   they used "topology."

3   MR. WOO: Yes.

4   Well, it's not -- I guess in some ways the problem,

5   interestingly enough, is that I think that their definition

6   is a little bit too narrow because it specifies color

7   attributes and other objects, but basically the bottom line

8   is that I think both definitions are correct in the sense

9   that they refer to the physical features of the land. I

10   mean that's what this patent is all about. It's all about

11   flying -- it's the method by which you bring back data

12   blocks.

13   THE COURT: Doesn't it include objects that

14   are to be found through satellite or airborne imagery? I

15   mean, for instance, topography would not ordinarily include

16   trucks that are observed.

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17   MR. WOO: I suppose it could.

18   Strictly speaking, it's the topography of the land.

19 Terrain is the land, as opposed to the objects on it.

20   THE COURT: What is wrong with saying, The

21 physical features of an area, object or material, which

22 include other features such as color attributes and objects

23 to which additional or complementary features may be

24 overlaid?

25   MR. WOO: Well, the problem is that it doesn't

                                                          20

1   distinguish between the terrain itself and then objects that

2   are overlaying the terrain.

3   The patent is about --

4   THE COURT: So what is core terrain? Is it

5   pictures? Is it simply elevations? Is it dimensions, what?

6   MR. WOO: It's the surface features of the

7   area.

8   THE COURT: Does that include color?

9   MR. WOO: It can, I suppose.

10   THE COURT: So that's one of the attributes,

11 or potentially one of the attributes, that is encompassed by

12 that definition. Does it include other kinds of objects

13 that may be found in the color -- in the airborne or

14 satellite imagery?

15   MR. WOO: It's not so much just color, but

16 it's the distinction between the three-dimensional aspects

17 of it. The topography would be the bumps in the land and so

18 forth, as opposed to just the flat surfaces itself.

19   I guess the difference would be the difference

20 between a tattoo and a scar. The tattoo would be flat and

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21 pretty much featureless, but a scar would have bumps and

22 elevation and so forth.

23   THE COURT: It has another dimension, a third

24 dimension.

25   MR. WOO: It has another dimension.

                                                                21

1   THE COURT: But that third dimension can

2   include -- or within a three-dimensional object can include

3   such things as color, or what's laying on top of it.

4   MR. WOO: It's just that it doesn't

5   distinguish between those two.

6   The patent is about bringing back the terrain. The

7   surface features and the objects are optional features that

8   are added on top.

9   But I suppose in this regard, your Honor, that the

10 two proposed constructions are not that far apart.

11   THE COURT: All right. I think I understand

12 that.

13   The next one?

14   MR. HAMELINE: Yes, your Honor.

15   The next one is "renderer," and if I could again

16 start with the overview perspective. Skyline states the

17 ordinary meaning to one of ordinary skill in the art, as

18 illuminated by the specification.

19   The defendants state that it has a more limited

20 definition, as limited by the claims.

21   And going back to the key legal issues, we would

22 say what they're doing is they are importing limitations

23 from the specification into the claims, which is not

24 appropriate.

25   If you -- in connection with this package of paper

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⬚

22

1   I gave you, which is defendant's changing claim terms, they

2   started off with software and then they went back and forth,

3   and now I think we agree that a renderer is an object or

4   something that may be implemented entirely in software or

5   may include a dedicated hardware processor.

6   So I don't think in the introductory section, the

7   parties, having gone back and forth in the process, really

8   disagree that much with that introductory definition, which

9   is software may include hardware, firmware, hardware

10   processor, something like that.

11   It is -- I don't think the parties also disagree

12   generally with the understanding in the prior art and in the

13   definition and in the general usage and in this patent that

14   a renderer, if you drop down to the bottom of our

15   definition, is something that assists in the display of

16   terrain based on the data provided. And I think that's

17   consistent with your initial approach in defining data

18   blocks. The renderer is that which takes that data,

19   interprets it and uses it to, if you will, illuminate the

20   screen with some real-life image, 3D image, et cetera.

21   The difference here is in the three terms which, we

22   submit, defendants are trying to basically take the

23   limitations in the claim and cram them into the definition

24   of renderer. A renderer like, I would say processor, a

25   renderer, if you look at Figure 5, which actually they have

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23

1   up on their tripod here, and you can see, Figure 5, this

2   line here, line 20, is the processor. Everything inside

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3   that is the processor, and here is the renderer

4   (indicating).

5   The renderer is part of the processor, and it

6   performs certain steps. It isn't defined by those steps.

7   If the method that Keyhole is using doesn't include those

8   steps, there is no infringement, but that doesn't mean that

9   the definition of renderer always includes those steps and

10   only those steps. And that is one of the major differences

11   between the two parties in the definition.

12   The second is that although they purport to import

13   the limitations from the claims, and we can use claim 1 as

14   an example, although it's essentially the same definition

15   throughout all 24 claims, they are doing so in a way which

16   is not consistent with the actual limitations.

17   For example, they say that in part one of

18   renderer -- you see the number one on the third line of

19   their definition in our slides -- "determines the

20   coordinates of terrain data required to create an image and

21   sends the needed coordinates along with a specified

22   resolution level to another object."

23   In fact, in column 11, lines 24 to 27, there is a

24   reference to what the renderer does preferably --

25   THE COURT: Can you give me the citation?

                                                            24

1   MR. HAMELINE: Yes, sorry.

2   Column 11, lines 24 to 28, essentially.

3   So, to step back from this, in the processor there

4   is a renderer, there's a cache manager, and there are other

5   sort of functional elements that the draftsman has used to

6   describe the processes here.

7   Here, in this section, the draftsman is talking

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8   about preferably the renderer determines these coordinates,

9   and then the next line is, "Alternatively, the cache manager

10   determines the identity of the required blocks and/or

11   sub-blocks."

12   So it isn't that the renderer has to be the one

13   doing the determining here. It is that the processor does

14   this, that this is part of the method of the claim.

15   THE COURT: But now we're dealing with a

16   definition of the capacity of the renderer, I think, that

17   something else might do it, do some of the functions or all

18   of the functions --

19   MR. HAMELINE: Right.

20   THE COURT: -- is, it seems to me, not

21   necessarily constraining the definition of renderer.

22   So let me suggest a definition, and I want to

23   understand --

24   MR. HAMELINE: Do you mind if I sit so I can

25   write it down?

                                                              25

1   THE COURT: Sure.

2   It's somewhat like what the defendant has to say

3   but a little bit different.

4   A renderer is a software and/or a hardware object

5   that is capable of determining and providing to another

6   object the coordinates corresponding to a data block or

7   blocks, along with a respective resolution level required to

8   create an image of the terrain receiving the requested data

9   blocks, and converting the received data blacks into images.

10   MR. HAMELINE: I don't think I have a problem

11   with that.

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12   The use of the term "capable of" gives it meaning,

13   but doesn't prescribe the meaning to solely this.

14   THE COURT: All right.

15   From the defendant's point of view?

16   MR. WOO: If I heard your Honor correctly, I

17   think that our point of view is, I think, squarely with your

18   Honor's. It's just that the word "capable," I think that

19   the word should be more definite than that.

20   THE COURT: When there is this reference to

21   other hardware or software performing much of the function

22   of the renderer, it suggests that the renderer is something

23   that's capable of doing those things but is not the

24   exclusive mechanism for doing it. That's why I guess I

25   reached for the word "capable."

                                                                26

1   MR. WOO: See, I guess my only problem would

2   be we need to draw a box around what exactly a renderer is,

3   because software is defined in terms of what its functions

4   are.

5   THE COURT: Right.

6   MR. WOO: And if we don't draw a box around

7   that and say that the renderer --

8   THE COURT: But isn't that the

9   functionality -- just by saying capable of doing these

10   things, haven't I defined the functionality?

11   (Counsel conferred.)

12   MR. WOO: My colleague thinks it's okay. So I

13   would defer to her.

14   But I do -- I want to address a couple of things

15   that Mr. Hameline said, and then, if I could, your Honor,

16   because they were able to go through their introduction and

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17   I didn't get a chance, I would like to make a few other

18   comments.

19   THE COURT: Well, I'm not going to -- at the

20   end I'll let you get to some of these things, but I think

21   what I would like to do is go through some of the language

22   here, because I have given some thought already to this,

23   give you some idea of what I'm thinking about to understand

24   more specifically what the potential disputes would be.

25   MR. WOO: All right.

                                                              27

1   THE COURT: And so if what you want to do is

2   consistent with that, go ahead. If it can be put off for a

3   while, perhaps that's better.

4   MR. WOO: It does actually relate specifically

5   to this particular claim term, because our view is that I

6   think if we can show your Honor how this invention works in

7   context, I think most of the things will kind of fall in

8   place.

9   THE COURT: I'll give you a little bit of

10   time, a little bit of time, to do that.

11   MR. WOO: Thank you, your Honor.

12   The first thing I wanted to point out, though, is

13   that Mr. Hameline was referring to column 11. He started

14   with line 24, which says, you know, Preferably, the renderer

15   determines which blocks to include, and so forth.

16   Preceding that is line 21, which says that the

17   renderer determines the coordinates. It doesn't say that

18   the cache manager or something else determines the

19   coordinates. What this language, and this goes from 21

20   through 27, really seeks to draw the distinction to is that

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21   you have a renderer that determines the coordinates. Then

22   you have something else, the cache manager, that goes out

23   and gets them.

24   It's as if you were ordering in a restaurant your

25   Honor, you're the customer, you determine what you want to

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1   eat, and then the waiter goes and gets what you want. And

2   so -- but you don't say that the waiter, you know,

3   determines what you want to eat. You determine what you

4   want to eat.

5   The renderer in this case --

6   THE COURT: Well, in that homely illusion, is

7   the cache manager my waiter?

8   MR. WOO: The cache manager is your waiter,

9   your Honor.

10   THE COURT: Why? Because he goes and gets

11   some quantity that I have not specifically described, but it

12   is of the things I wanted him to get? Is that the theory?

13   MR. WOO: Exactly.

14   So the renderer is the one that determines the

15   coordinates.

16   And in this case, what the patent is saying is that

17   the renderer can also determine which blocks to get back,

18   but, alternatively, you can ask your waiter to go do that,

19   the cache manager. But in all circumstances the renderer,

20   or your restaurant customer, is the one who determines the

21   coordinates, determines what you want, and that's what this

22   language is speaking to.

23   THE COURT: What is the problem with -- I

24   mean, apart from that distinction, what is the problem in

25   construction that is imbedded in the way in which I have

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1   done it, from your perspective?

2   MR. WOO: Oh, I didn't mean to suggest that

3   there's a problem with your Honor's construction. I was

4   actually addressing what Mr. Hameline was saying in an

5   attempt to get Skyline's construction, and all I was

6   commenting on, trying to illustrate, is that their

7   construction is not -- is really not supported by the

8   specification, because they want -- well, let me put it up.

9   THE COURT: What does it mean when it says

10   "preferably"? That's sufficiently open-textured, preferred

11   embodiment. Preferably it determines the exact blocks

12   needed and calls for them using their coordinates.

13   MR. WOO: Right, and that's a different

14   function. That's not determining the coordinates. It says,

15   Preferably the renderer determines which blocks include the

16   pixels; that is, which ones do I pull off the shelf --

17   THE COURT: I'm now going to column 14 for

18   further discussion, and particularly lines 10 through 13.

19   Preferably the renderer determines the exact blocks

20   needed and calls for them using their coordinates. So the

21   renderer is involved in identifying coordinates as well.

22   MR. WOO: Yes. Well -- yes, that's right.

23   The renderer determines the coordinates. That's correct.

24   THE COURT: So I am not sure where that leaves

25   the discussion we were having before, because then the

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1   renderer is getting me a price-fixed meal, I guess.

2   MR. WOO: Well, the issue here is that

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3   Mr. Hameline's client is suggesting that something other

4   than the renderer can determine the coordinates, and there's

5   no support for that. He's suggesting that alternatively the

6   cache manager or some other object can determine the

7   coordinates, but that's a different function.

8   THE COURT: Well, Mr. Hameline, what else can

9   determine the coordinates here?

10   MR. HAMELINE: I think the cache manager, the

11   processor, and within that, within the definitional terms,

12   the renderer or the cache manager.

13   THE COURT: How do I see that the cache

14   manager can do that? Am I looking at column 11,

15   particularly the language at line 26, "Alternatively, cache

16   manager determines the identity of the required blocks

17   and/or sub-blocks."

18   MR. HAMELINE: Hm-hmm.

19   THE COURT: Does that necessarily determine

20   the coordinates?

21   MR. HAMELINE: I'm not sure, your Honor.

22   THE COURT: Okay, so where do I find that what

23   we're saying is that the renderer determines coordinates, or

24   that something alternative to the renderer determines

25   coordinates?

                                                                31

1   MR. HAMELINE: Well, if I understand what

2   you're saying, the renderer may determine the coordinates

3   or, alternatively, the cache manager.

4   THE COURT: I am trying to understand. What

5   you are telling me is the circumstance. Now, I've got this

6   language that says preferably the renderer examines -- and

7   this is column 14, lines 10 through 13 and a little beyond.

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8   But I do not find any place where the cache manager

9   determines coordinates.

10   I have the cache manager determining the question

11   of data blocks, exact blocks, but I don't have him

12   identifying coordinates, at least as I understand

13   coordinates, which is, of course, something we will get to

14   in a minute.

15   (Pause in proceedings.)

16   MR. HAMELINE: I'm not sure I can distinguish

17   between the two points, your Honor.

18   I think if a data block is something which covers

19   you know, something, it covers an atom or a part of an atom

20   or part of the earth, the coordinates there are relevant to

21   that sub-block ordered by the cache manager.

22   THE COURT: Well, but there is a distinction

23   that's drawn in the specification between identifying data

24   blocks and identifying coordinates. So they must mean

25   different things; perhaps overlapping things, but different

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1   things.

2   MR. HAMELINE: I think they are overlapping.

3   I think the coordinates are tied in in the language of this.

4   Typically, a data block may be a polygon or a square. We'll

5   call it a square.

6   THE COURT: I'm not sure that a data block is

7   a geometric object.

8   MR. HAMELINE: I take that back. It would

9   describe something. It could be used to describe something.

10   And as I understand the coordinates, coordinates

11   are typically tied to one of the corners of the data in the

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12   data block, and it's called out to be downloaded to that

13   particular renderer to do that.

14   So that a data block is, if you will, referenced by

15   a coordinate in the corner, and it's then referenced and

16   pulled or downloaded based on that request.

17   THE COURT: Well, it's an additional function

18   that's being performed. First, the identification of the

19   data block or blocks, exact blocks needed, and then the next

20   function is to call out the coordinates and their resolution

21   to begin the focusing or layering process, I guess. And I'm

22   trying to figure out where there is something other than the

23   renderer that's doing that.

24   MR. HAMELINE: This is my only reference, and

25   the understanding in connection with how a data block is

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1   referenced and pulled, isn't that it's described as data

2   block X. It's described with respect to a coordinate, which

3   is usually tied to one of the cameras off that and then

4   referenced to, if you will, the map that the renderer or

5   cache manager are trying to create, display, whatever.

6   THE COURT: Okay.

7   I think I understand what you have to say.

8   Anything further on this?

9   MR. WOO: No, your Honor. I think we've

10   covered this issue pretty well.

11   I mean it's -- another analogy might be you could

12   go through a grocery store and pull the items off the

13   shelves yourself, or you could go to a place like an auto

14   parts store and ask the guy behind the counter to get it for

15   you. Either way, you're the one who's determining the

16   coordinate of what you want. Either you go get it or

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17   somebody else goes and gets it, and it's two different

18   functions; and that's the distinction the patent draws, and

19   the renderer is the only one that determines coordinates.

20   THE COURT: I am not sure that it is resolved

21   or going to be resolved by construction here. The language

22   is open-textured, "preferably," which suggests a negative

23   pregnant.

24   MR. WOO: That's -- in column 14, that's the

25   language of the preferred embodiment, the only disclosed

                                                          34

1   embodiment in the patent.

2   But in column 11 it just nakedly says, Renderer

3   determines the coordinates. It doesn't say it's preferably,

4   and if I could just show your Honor an animation we prepared

5   of the operation of the patent using Figure 5, I think this

6   will all become clear.

7   THE COURT: All right.

8   MR. WOO: So if we can just run that

9   animation.

10   (Videotape played.)

11   MR. WOO: What we'll see here, if we can just

12   pause for a second, is the patent running -- the animation

13   running according to claim 1 of the patent, and it will show

14   the steps of the method claimed in that patent claim, and it

15   will start off with the renderer providing the coordinates

16   and resolution levels for the cache manager.

17   We can see the renderer providing those items to

18   the cache manager. The patent is written, as your Honor

19   knows, in the passive voice, but it's clear from the context

20   that it's the renderer that is providing these items.

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21   The cache manager uses those to retrieve the data

22   block, the first data block, from a local memory.

23   And a part of that -- you can pause for a second.

24   A part of that is because, as I think Skyline

25   acknowledges, you want to pull it from the local memory

                                                              35

1   because it's faster to provided it that way.

2   One of the objects of this invention is to make

3   sure that you have things to see at all times.

4   So here we now have the first data block being

5   pulled out, and it's at Resolution Level 1, which is not the

6   resolution level indicated by the renderer, but it's at a

7   lower resolution level. And it's provided to the renderer,

8   which then uses that block to create an image, in this case

9   a very blurry one because it's a low-resolution image.

10   Now, the images are loaded such that -- pause for a

11   second -- so that the local memory is loaded with a

12   low-resolution image that covers a wide area, sort of like

13   the airline map that you might see in the back of the

14   airline magazine. And the reason for that is you're more

15   likely to have something of interest to see if you want --

16   if you carried an image that covered a large area. But if

17   you wanted to get down to the level, for example, of Boston

18   Harbor and see this courthouse, even if you got a magnifying

19   glass and held it up to the airline map, all you'd see is a

20   dot that says "Boston" on it.

21   So to restore that, you'd go to something more like

22   a Thomas Guide, sort of, a big thick book of maps that

23   covers only the Boston metropolitan area. But you don't

24   keep adding local memory because it's not practical to do so

25   if you had a Thomas Guide for every city --

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1   THE COURT: I think I understand those
2   principles.
3   MR. WOO: Okay.
4   So, anyway, you raise that in a database offsite
5   somewhere in a hierarchy. So that when you went through the
6   levels, Levels 1, 2, 3, 4, you'd bring back images of a
7   resolution that increasingly got sharper and more well
8   defined at increasingly higher resolution. And that would
9   automatically happen because the data blocks are stacked
10   that way in the hierarchy. That's what the patent tells us.
11   So the next step here is -- so after the first one
12   is provided, then we have -- if we can sort of freeze for a
13   second.
14   So the third step is more like two steps in one.
15   The patent tells us that if, first of all -- it's a
16   little backwards. If it's not at the level that's indicated
17   by the renderer, then you go off and then download
18   additional data blocks.
19   So what we have here is a determination by the
20   computer whether or not the first one that is provided was
21   at the resolution level that was requested, and which is
22   sort of graphically illustrated by this equal sign and
23   question mark. Computers don't just know things. They have
24   to make a determination to figure them out. So that's
25   what's being specified in this step.

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1   You see that this block is not at the level that's
2   requested. So what's going to happen next is that the

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3   second part of this step gets done, downloading from a

4   remote server additional data blocks at a resolution level

5   higher than the first block, which include data

6   corresponding to one or more coordinates.

7   And you see here now the request being made, and

8   the data block coming back at Resolution Level 2.

9   Again, I have this graphic illustration here that

10   Level 2 is greater than 1, but there is no question mark

11   because there is no determination that has to be made that

12   the hierarchy, the database, is already arranged in a

13   hierarchy, going from low res. to high res.. So you

14   automatically put back higher resolution blocks as you go

15   down the levels, and that's a key portion of this invention.

16   That's why it says hierarchy.

17   So we can go on from here.

18   Here we see that same determination is made as to

19   whether or not it's the one you want, and it continues to

20   pull down more data blocks of increasingly higher resolution

21   until you get to the desired resolution of Boston Harbor and

22   so forth.

23   We see now that we finally get a data block that is

24   of the desired indicated resolution level by the renderer,

25   and it gets displayed. The image is created, and we see now

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1   a pretty high-resolution photograph of the Boston Harbor.

2   If you get out your magnifying glass, you can see

3   the courthouse, by the way.

4   So we'll get into some of these other terms later,

5   but I wanted to note right now that -- so this is sort of to

6   sum up what we just saw here on renderer.

7   Software patents inherently need to be construed in

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8   context because the only way to determine what a computer

9   software object is is by its function, and the only way to

10   know what it is and what it isn't is by what it does, and

11   that's why we have to construe this object very carefully so

12   that we know exactly where the metes and bounds of the

13   patent are.

14   If your Honor could just -- if I can just direct

15   your attention here to another object on the screen -- it's

16   kind of hard to see -- the navigator on the left.

17   A navigator is another object of this preferred

18   embodiment, and if the navigator was the one providing the

19   coordinates and the resolution level to the cache manager,

20   that would be outside the bounds of this patent, because the

21   claim specifically says it's the renderer that is supposed

22   to do that. So in order to know whether or not you're in

23   the patent or not in the patent, you need to know where the

24   renderer begins and ends and where the navigator begins and

25   ends, because if you have the navigator doing those things

                                                        39

1   that the renderer is supposed to do, then you wouldn't have

2   infringement. You wouldn't be practicing the patent.

3   So that's a long -- sort of long explanation, your

4   Honor, of why it is that the term renderer has to have a

5   pretty specific meaning and which is why Dr. Feiner found as

6   he did, viewing from the standpoint of one of ordinary skill

7   in the art, that it has to have these three things.

8   THE COURT: All right. I think I understand

9   your perspective.

10   We'll move on to your next --

11   MR. HAMELINE: Yes, your Honor.

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12   "Data blocks belonging to a hierarchical

13   structure."

14   There are really two points that I think are at

15   issue here, and one of them -- let me go back to data blocks

16   for a moment, if you will.

17   First, if you will look at our definition again, I

18   think it's a straightforward definition, using the term data

19   block as it's been defined, multiple levels of resolution,

20   which is what we've talked about here, wherein each level of

21   structure contains blocks of a different resolution.

22   The defendants have tried to, I would say, create

23   too fine a point on this and have gone beyond what the

24   specification discusses and defines in this context and in

25   respect to the operation of the invention.

                                                          40

1   In particular, we don't disagree that it's

2   organized in multiple levels of resolution.

3   The next line, however, "whereby each level

4   contains data blocks at the same resolution," and I believe

5   in their discussion of data block in their briefs they use

6   an analogy that says, basically, it's the military, that

7   there are successive levels of hierarchy in the military.

8   There are lieutenants, captains, colonels and generals. And

9   I would just say with respect to that analogy, not all

10   generals are equal. Here it's the same issue.

11   THE COURT: Well, it is, but it's a different,

12   I think, different perspective, which is, Does the patent

13   have or teach a directionality?

14   Your definition suggests that the movement from

15   high to low and low to high are both covered, but there is

16   what I will call an ordinal dimension to this, and in some

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17   ways it was captured in your communications with the

18   examiner. In some it is captured in the way in which the

19   levels are described in Figure 1, but they support a

20   directional view from lower resolution to higher resolution.

21   And so hierarchy is not merely -- sometimes one group is on

22   top and sometimes another group is on top; that it imports

23   here some movement from lower resolution to a higher

24   resolution.

25   MR. HAMELINE: I don't disagree in the

                                                                    41

1   operation on the method, your Honor. I think you're

2   referring to the Migdal Patent and the discussion and the

3   prosecution history, and that is referenced here, and, in

4   fact, the description of what we gave, and I think what

5   Keyhole and Googles' lawyers gave, in terms of how this

6   method allows you to overcome those limitations of prior

7   art.

8   THE COURT: Right.

9   MR. HAMELINE: This definitional issue here,

10   with respect to the data blocks belonging to hierarchical

11   structure, that is in that introductory section of the

12   patent, and it's comprised of those two methods and refers

13   to data blocks belonging to a hierarchical structure, which

14   refers to the database, not the successive levels of

15   downloading, which are referred to in the methods.

16   And our only quibble there is, you know, you can

17   define a database. I mean, they talk about starting with

18   the highest resolution image, if you will, and then

19   decimating to get down to lower resolution images.

20   And then when they talk about it in the reverse,

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21   they talk about the pyramid starting with the lower

22   resolution images and building up.

23   So in terms of the definition of the database

24   itself, I don't think there is a directionality implied in

25   terms of where you start or where you end or what

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1   succession.

2   In connection with the method of the patent, I

3   agree that the method of the patent requires an operation in

4   which you start with, as I think both sides have explained

5   in connection with how this patent overcomes the prior art,

6   you start with a lower resolution image, and then you

7   successively screen more data, and as that image sharpens

8   up, you get a --

9   THE COURT: So then why -- what's the problem,

10   not the "problem" --

11   MR. HAMELINE: Because things --

12   THE COURT: It seems to me that fairly read,

13   and this is an area in which reading the patent contextually

14   may lead to something that's a little bit different from

15   ordinary meaning in this context, but that we're really

16   talking about the organization whereby each level contains

17   data blocks at the same resolution, and each successive

18   level contains data blocks of a higher resolution.

19   MR. HAMELINE: I think there are two issues

20   there. I think we're talking about the second, which is the

21   successive levels containing data blocks of a higher

22   resolution.

23   And what I was getting at in connection with the

24   method is, yes, the method describes streaming data blocks

25   of higher resolution to provide a more detailed image, if

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1   you will. I don't disagree with that.

2   The part of the patent this comes from is the

3   introduction. This refers to database. This, "data blocks

4   belonging to a hierarchical structure," describes the

5   database.

6   And in connection with the database, it isn't that

7   one level is higher or lower in terms of the preceding

8   level. You can look at it in either direction. The patent

9   describes how you create the database starting with highest

10   resolution image, if you will, and decimating down, and then

11   talks about how you stream and how the pyramid appears, you

12   start with the lowest resolution and go up.

13   So I'm not sure which precedes in the definition of

14   the structure of the database.

15   With respect to the method described for

16   downloading, yes, the method does describe higher

17   resolution, blocks coming in a successive orientation, if

18   you will. I don't disagree with that.

19   The other point -- and I am not sure whether this

20   is a practical dispute that we have in this case, because it

21   really focuses more on the method of the data streaming

22   rather than the organization of the database.

23   The other issue is with respect to, whereby, each

24   level contains data blocks at the same resolution. If that

25   same resolution is going to be defined in a very exact way,

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1   which is each data block on that level, if you will, in the

2   database has exactly the same amount of data in it, that's

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3   wrong. That is not supported by the specification, and I

4   can walk through those points.

5   I agree generally that as you go up or down in your

6   database, you are looking at successively higher or lower

7   resolution data, if you will. I don't think we disagree on

8   that. It's -- if they are arguing that in each one of these

9   levels across the way that each block is of the same

10   resolution or has the same amount of data --

11   THE COURT: There's potentially two different

12   things, that they have the same amount of data may or may

13   not mean that they have the same resolution, because it

14   really has to do, I suppose, with the nature of the terrain

15   that's being depicted.

16   MR. HAMELINE: Precisely, and that is the

17   other issue, which is blocks may be of other sizes. They

18   may be of similar sizes. They might be of other sizes. The

19   block may be divided into sub-blocks, which would be

20   downloaded separately. Additional data such as objects may

21   be in those blocks.

22   A block, in particular -- again this gets down back

23   to the issue --

24   THE COURT: Yes, but they have to be the same

25   resolution level; that is to say, you put at Level 3 Mount

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1   Kilimanjaro and Boston Harbor at Level 1, you have a fairly

2   large object, inordinate objects. So we're talking about

3   the same general -- not "general" -- same resolution level,

4   which may or may not mean that the data blocks are the same

5   size. But that, it seems to me, is a different question.

6   MR. HAMELINE: I think it's the same -- the

7   data block can be a different size depending on whether

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8   you're looking at the most general image of the earth or

9   depending how much resolution you need of a very small image

10   of a city block or something.

11   In terms of how much resolution you're going to get

12   in a data block having the same amount of data, you're going

13   to get a very precise resolution of something that doesn't

14   have a lot of detail. You're going to get a very fuzzy

15   resolution with the same amount of data of something that

16   has a lot of detail, particularly here where we're doing

17   3D --

18   THE COURT: Isn't that the point then, that we

19   are not talking about the same amount of data here? We are

20   talking about the same level of resolution.

21   MR. HAMELINE: I don't think you can say that

22   when each level -- when you're looking at something

23   different. If you're looking at a flat terrain, if you're

24   looking at the Sahara Desert, the resolution of that is

25   going to be a lot more precise than if you're looking at a

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1   mountain range which has a polygon, which is going to take a

2   lot of data to be able to look at that from perspectives and

3   essentially rotate that in a space so your resolution, even

4   though the same amount of data is -- even if the same amount

5   of data were across the board, your resolution of that,

6   because the 3D issue --

7   THE COURT: I'm doing, I think, the reverse of

8   that, which is to say that I would not necessarily -- I

9   think this is to say -- I would not necessarily have the

10   same amount of data, but I could have the same resolution.

11   MR. HAMELINE: You could have the same amount

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12   of data. You could have the same amount of resolution. I

13   don't disagree with that.

14   THE COURT: They are independent variables.

15   MR. HAMELINE: Correct.

16   THE COURT: So the focus for hierarchical

17   purposes, that is, the hierarchical structure, is

18   resolution?

19   MR. HAMELINE: The hierarchical structure,

20   depending on which part of the image, if you will, your

21   Honor -- I know it sort of waffles across the board.

22   If you've taken an image, and part of the image

23   part of the image is of the Grand Tetons, and part of the

24   image is of the valley floor, you're going to break that up

25   into sub-blocks. You're going to have a lot more data in

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1   some, and you get different resolution in some because

2   you've got to have 3D data in there, which is going to

3   change your amount of data and, therefore, the amount of

4   resolution in the image.

5   So I don't disagree that in terms of hierarchical

6   there is an increase or a decrease as you're looking at the

7   database, depending on which direction you look at, but I --

8   and generally, therefore, there is an increase and decrease

9   in the resolution level and the amount of data. But I

10   disagree with the definition that says it's the same. I

11   think that's superfluous, and I think it's inaccurate.

12   THE COURT: Well, but it captures the question

13   of what I will call the ordinal quality of hierarchy.

14   I mean, if there's a hierarchy, what's the basis

15   for the distinctions, and the distinctions, it seems to me,

16   are levels of resolution?

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17   MR. HAMELINE: I agree it's levels of

18   resolution, but to go back to the army analogy, across all

19   levels are not identical. They are not the same.

20   Generally, they are higher or lower than the Level

21   4, yes, but across the board they are not the same.

22   MR. WOO: Your Honor, that totally conflicts

23   with every notion of hierarchy I've ever heard of, and it's

24   in the record and in the dictionaries --

25   You know, this is a prime example of why it's

                                                                48

1   important, as your Honor had stated earlier, to read this

2   patent in context.

3   You know, I talked to my kids about this, what I'm

4   doing today, before getting on the airplane, and when I

5   explained it to them, they said, Oh, context, that's just

6   like Amelia Bedelia. And if you've ever heard about Amelia

7   Bedelia, she's this maid that reads everything literally,

8   and if you ask her to dress --

9   THE COURT: No, she seems to be perfectly

10   capable of doing patent construction.

11   (Laughter.)

12   MR. WOO: Well, she will take things out of

13   context and get them wrong.

14   But what's happening here is that, as we've seen in

15   the Figure 5 animation, the reason you have a hierarchy is

16   so that when the cache manager downloads the additional data

17   blocks, they're arranged in a hierarchy to begin with and

18   you pull them in in order of level, and you get increasingly

19   sharper resolution. It goes from blurry to sharp, which is

20   the stated goal of the patent. It's right in the patent

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21   itself, and that's exactly the context of this invention and

22   why hierarchy must mean having the same resolution at the

23   same level, and then successive levels having higher

24   resolution, going from either low to high or high to low, we

25   don't care. It doesn't say that you have to be one or the

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1   other, but it has to be -- one is not preferred over the

2   other, but it has to be one or the other. It can't just be

3   different, because different would mean that either you'd

4   have -- at the same level you'd have different resolutions,

5   which would not result in an operation of this patent that

6   would work the way it's described in the specification, or

7   you'd have levels that went from blurry to sharper to blurry

8   again, and then maybe more sharp and then -- and so forth.

9   And you wouldn't have the kind of progression that you see

10   on the screen, and that the patent tells you you're supposed

11   to see on the screen, that goes from blurry to sharp in

12   steadily increasing resolution.

13   And that progression is what Skyline even concedes,

14   if you look at their opening brief, on page 5 of their

15   opening brief. So there is just no teaching in the patent

16   about how you put something together with something -- with

17   a database having levels that are of different resolution.

18   You know --

19   THE COURT: Well, the question that you

20   suggested in your argument that it does not make any

21   difference whether it is lower to higher or higher to lower,

22   and maybe it doesn't in the larger sense, but if I am to

23   look at the Migdal distinctions --

24   MR. WOO: Yes.

25   THE COURT: -- they are repeatedly referring

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1   to the differences that Migdal does not disclose downloading

2   blocks in the order in which the coordinates are provided,

3   nor downloading blocks of lower resolution before those of

4   higher resolution.

5   MR. WOO: That's right.

6   THE COURT: Similarly, the distinction between

7   the '189 patent and Migdal pressed on the examiner was that,

8   for example, claim 7, which is the one that was being

9   discussed there but provides some insight, requires that the

10   order is from the lowest resolution to the highest

11   resolution, and Migdal taught away from that order.

12   MR. WOO: Yes, your Honor.

13   You're actually correct. I stand corrected. It

14   has to go from lower to higher, not vice versa. I was

15   looking at it from the standpoint of if you start with a

16   database from lower to higher or higher to lower, if you

17   start at one end to the other, you'd always end up in the

18   same place, if you started from the low end to the high end.

19   So I suppose what we're looking at here is the

20   distinction against Migdal that suggests that it always has

21   to go from lower to higher regardless of how the database is

22   structured, from either the top to bottom or bottom to top.

23   But, in any event, it's not going to be a situation

24   where you have different levels having, you know,

25   alternating levels of the resolution going from high to low

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1   and low to high and everywhere in between, because what

2   would happen then is that you would have an image that is

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3   bounced back and forth between blurry and sharper and less

4   blurry or less sharper and more blurry and so forth, and

5   that's not what the patent teaches.

6   THE COURT: I think I have that one.

7   Do you want to move on, unless there's something

8   else the parties want to talk about?

9   MR. HAMELINE: I don't think so, your Honor.

10   THE COURT: Let's move on.

11   MR. HAMELINE: The next point is "coordinates

12   in the terrain."

13   THE COURT: Right.

14   MR. HAMELINE: I think in a nutshell the

15   difference is whether the coordinates can use two --

16   THE COURT: Well, whether it means more than

17   one.

18   MR. HAMELINE: More than one.

19   I think defendant's proposed definition is two, and

20   our definition is more than one, and I think the nub of this

21   is since the patent refers to three-dimensional terrain,

22   that to have three coordinates is certainly inherently

23   required in order to have three-dimensional terrain. You

24   have got to have an X and the Y and a Z, if you will,

25   coordinate in order to give you the level of data -- the

                                                        52

1   data required over the resolution level.

2   THE COURT: So how can you say that, "Any of a

3   group of one or more numbers used to determine position,"

4   because it would have to be in three dimensions, at least

5   three coordinates.

6   MR. HAMELINE: Well, it wouldn't have to.

7   You could have two coordinates and you could have a

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8   separate resolution level. It depends how you would

9   structure this, but the coordinates --

10   THE COURT: In order to present something with

11   three dimensions, don't you have to have three coordinates?

12   They may be identical. If you are presenting a point in

13   three dimensions, the coordinates are all the same.

14   MR. HAMELINE: I think this one, if you look

15   sort of rationally at the discussion we are having and you

16   look at the claim language, which says, Receiving from the

17   renderer one or more coordinates in the terrain, which, for

18   example, claim 1, it's the first sentence under,

19   "comprising" --

20   THE COURT: Right.

21   But what I am getting at is how can one say that

22   any one or more numbers, because yours is a singular? You

23   are attacking theirs as being a pair, but yours is a

24   singular.

25   MR. HAMELINE: But you could have -- you could

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1   have a coordinate scheme, which is, you know, based on a

2   certain number, that would refer to coordinates and a

3   resolution level. That could be --

4   THE COURT: Under your definition, as I try to

5   read it, you could have a relevant coordinate that would

6   be X.

7   MR. HAMELINE: Yes.

8   THE COURT: That's coordinates in the terrain,

9   and it just doesn't seem to work that way.

10   MR. HAMELINE: You could have a Coordinate 1,

11   which would then be a reference to your database, which

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12   would be an X, Y and a resolution level.

13   You could have a 2, which would be a reference to

14   that.

15   You could have a 3, which would be a reference --

16   THE COURT: These are coordinates in the

17   terrain. This is not in the databases that we're talking

18   about. We're talking about the coordinates in the terrain.

19   MR. HAMELINE: That could be the coordinate in

20   the terrain referenced back to the data block, which then

21   you pull off the data block.

22   So it doesn't necessarily have to be comprised in

23   the sense that we think of latitude, longitude and height.

24   You could have a numbering system that is very

25   straightforward in terms of -- and this is not inconsistent

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1   with the way that computers work with ones and zeros, which

2   is simply that all of those various coordinates in terms of

3   two dimensional, and all the various resolution numbers, are

4   given a numbering system from one to a million and called up

5   in that fashion.

6   THE COURT: Well, it just -- I have some

7   fairly ingrained difficulty of thinking coordinates in this

8   context as one. I suppose you can talk about instructions

9   that you are giving that database, but here we are talking

10   about coordinates that coordinate.

11   MR. HAMELINE: I agree, your Honor, and I

12   don't think I would have picked the word "one," except it

13   says in the patent -- it says, One or more coordinates. So

14   I have to -- it's our patent, and I want to be true to the

15   patent language. It says, One or more coordinates. I

16   think, but for that, I would agree with your interpretation

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17   or your -- what you seem to be voicing as a possible

18   construction. That is the language.

19   THE COURT: Let me, you know, try what I've

20   roughed out.

21   Coordinates in the terrain would mean a set of

22   coordinates, such as X, Y, that, along with the indication

23   of a resolution level, identifies a particular data block.

24   Now, why doesn't that work?

25   MR. HAMELINE: I don't -- I think, as a

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1   practical matter, I think it works, from my understanding of

2   the way that you would do this.

3   It's inconsistent with the claim language, is still

4   what I come back to, and I am not sufficiently knowledgeable

5   to know from a computer diagnostic or organizational sense

6   why they would say one or more coordinates, other than the

7   understanding that I just gave you, which does come from my

8   clients, but I can't give you from a sort of practical

9   understanding --

10   THE COURT: Well, let's look at the patent so

11   I have the language that you're focused on.

12   MR. HAMELINE: I'm sorry? You want to see

13   where that language is?

14   THE COURT: Yes.

15   MR. HAMELINE: Claim 1.

16   What is claimed is --

17   THE COURT: No, no, no. Just give it to me.

18   MR. HAMELINE: Column 16, line 32,

19   essentially.

20   THE COURT: Hold on just a second.

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21   (Pause in proceedings.)

22   THE COURT: I guess what is happening is that

23   the language that is being construed is "coordinates in the

24   terrain," and the phrase is the beginning of this, one or

25   more of those coordinates. The coordinates in the terrain

                                                              56

1   has to be a set, I think.

2   Now, you know, when you think of coordinates, you

3   are thinking of a group, but you could have one coordinate,

4   that's X --

5   MR. HAMELINE: Hm-hmm.

6   THE COURT: -- and so I guess I am not

7   embracing necessarily a pair. I am simply saying a set in

8   the set that permits also the identification of the

9   resolution.

10   That's the group -- I guess what I'm trying to get

11   at is that's the group context or group definition. The

12   idea of one of those things being X is, in some ways,

13   objectionable.

14   MR. HAMELINE: I don't disagree. I would say,

15   your Honor, when you say, Along with the resolution level, I

16   think it's more appropriate that, May include a resolution

17   level.

18   THE COURT: Well, if it's terrain, if it's

19   terrain --

20   MR. WOO: Your Honor, if I may --

21   THE COURT: -- it has to, I mean --

22   MR. WOO: Sure.

23   THE COURT: -- let me talk this through.

24   It has to include a resolution level in order to

25   identify the data block.

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1   MR. WOO: Let me take that one on first.

2   It does not, because the patent claims two

3   different things. It claims the coordinates in the terrain,

4   and then it says, we also supply a resolution level.

5   So, yes, you do need those two things to identify

6   the block, but you don't build in resolution level into the

7   coordinates because they're two separate things. They are

8   called out as separate terms in the patent, and if you had a

9   resolution level built into coordinates, then you would be

10   reading out resolution --

11   THE COURT: Let's think about it this way.

12   What's the function of coordinates in the terrain,

13   or how would you define coordinates in the terrain?

14   You would define it as --

15   MR. WOO: Well, again, the context is a map.

16   It's terrain, so --

17   THE COURT: Okay.

18   So it is -- I'm thinking in, I suppose, geometric

19   or architectural terms, plan and elevation, both of them are

20   generally defined by coordinates. They're both

21   two-dimensional in their character.

22   I suppose they don't, in and of themselves, require

23   a resolution level. It's simply a way of organizing data

24   for purposes of identifying a particular image of terrain.

25   MR. WOO: Right.

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1   The context again is terrain. So, at a minimum,

2   you're looking at a two-dimensional map. In a

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3   two-dimensional map, you can only find where it is on the

4   map by using at least two coordinates to define the point;

5   or, more particularly, if you have more than that, but you'd

6   have to have at least two because each position would have a

7   latitude and a longitude. Or, if you just use X and Y, it's

8   the same thing. If you only had latitude, for example, you

9   wouldn't know -- again, just by way of an example --

10   THE COURT: Does it have to be a pair?

11   MR. WOO: Well, at least a pair, yes, your

12 Honor, because --

13   THE COURT: At least a pair because

14 "coordinates" implies two.

15   MR. WOO: That's right.

16   THE COURT: Implies more than one.

17   MR. WOO: Right.

18   THE COURT: But I used the language "set."

19   MR. WOO: Set.

20   THE COURT: And I'm not sure why that is

21 unfair in this circumstance.

22   I can't say that it's A, one, when I'm talking

23 about the phrase coordinates in the terrain. The phrase

24 coordinates in the terrain is introduced, that's why I

25 wanted to go back and look at this, is introduced by one or

                                                          59

1   more.

2   MR. WOO: Right.

3   THE COURT: But that's not the definition of

4   what coordinates are. One could -- and you can anticipate

5   one coordinate, thinking about one coordinate as an X.

6   MR. WOO: You could. So that's why I think a

7   set or a pair, at the very minimum, works here.

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8   THE COURT: Why wouldn't "set" work?

9   MR. WOO: I think it does, except -- again, if

10 we can get beyond the resolution part. I don't think the

11 resolution part goes in there for the reasons I've stated.

12   A set of coordinates works because in a set, you

13 don't have a set unless you have two or more.

14   THE COURT: Okay.

15   In order to determine a data block, which is

16 ultimately what the process is all about --

17   MR. WOO: Right.

18   THE COURT: -- you have to have those

19 coordinates, but you also have to have a resolution.

20   MR. WOO: Right, and the patents call those

21 out separately.

22   THE COURT: And if you back up the definition

23 in a way that says, What is it that coordinates in the

24 terrain do? They -- separate entity, coordinates in the

25 terrain -- together with a resolution level, or an

                                                      60

1   indication of a resolution level, identify a data block.

2   MR. WOO: Correct, correct.

3   So then the coordinates would refer to a location

4   on a map, a two-dimensional map, of where this is you're

5   looking for. So if you're looking for Boston, for example,

6   and you only had a latitude, you wouldn't know whether it's

7   Boston or someplace in Europe or Asia. You have to have --

8   THE COURT: Southern Spain is what I'm told.

9   (Laughter.)

10   MR. WOO: But you need to have the longitude

11 as well. So you always have to have at least two. So I

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12   suppose if "set" implies the need to have at least two, I

13   guess I'm okay with that, but I think resolution has got to

14   be separate.

15   THE COURT: In a three-dimensional

16   presentation, you would have to have three coordinates,

17   wouldn't you?

18   MR. WOO: No, not necessarily, because in

19   their system, the resolution level acts as a proxy for

20   height. So you could minimally get by with a pair of

21   coordinates, the coordinates on a map plus the resolution.

22   THE COURT: I see.

23   But if you were -- I'm not sure how it gets

24   presented. Well, it's presented in a three-dimensional

25   fashion. It's presented on a two-dimensional surface, but

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1   one could say that you provide the sea level and the

2   coordinates for Death Valley, and you'd be in the middle of

3   the air.

4   MR. WOO: I'm sorry? I couldn't hear you.

5   THE COURT: Death Valley is below sea level.

6   MR. WOO: Yes.

7   THE COURT: So you provide the coordinates,

8   both elevation and longitude and latitude, you just defined

9   a place, a point, in the air.

10   Now, the presenter, because you would be looking

11   down --

12   MR. WOO: It's in the terrain.

13   THE COURT: But there would be a different set

14   of coordinates for the floor of Death Valley in the set of

15   coordinates, three coordinates.

16   MR. WOO: If you were to specify that, but the

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17   example you gave of the coordinates, that would not be in

18   the air at sea level, wouldn't be coordinates in the terrain

19   because that would be coordinates in the air. So this is

20   talking about coordinates, you know, again in the terrain.

21   Which block corresponding to Boston Harbor, to beat a dead

22   horse, are we talking about? And it's going to have that --

23   the data block for that coordinate is going to have some

24   level of resolution.

25   THE COURT: All right.

                                                                62

1   MR. WOO: So you specify the resolution you

2   want separately, and you specify where it is that you want

3   it separately.

4   MR. HAMELINE: I think -- your Honor, I think

5   what we're hearing in that explanation is that height always

6   equals resolution level, and I might have been mistaken. It

7   doesn't. You can have, as we saw from the various streaming

8   images --

9   THE COURT: What kind of images?

10   MR. HAMELINE: The streaming images we saw on

11   the video. I used that just as a proxy. Essentially it's

12   the downloading they're showing the streaming of.

13   You can have -- and essentially what the patent

14   does, is it brings you into a certain height, and brings in

15   what you call -- I think in the photo the streaming they

16   show is Level 1, which is a very fuzzy resolution of that

17   height.

18   Level 2, which is a clearer resolution of that

19   height, and Level 3, which is an even clearer resolution of

20   that height.

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21   So I don't think height is necessarily a proxy for

22   resolution level. In some cases it is, but it's a

23   different -- it can be a different animal.

24   THE COURT: Well, I think it does have to be

25   distinguished, in part because of this process of moving

                                                          63

1   back and forth between a three-dimensional presentation on a

2   two-dimensional surface. That's what these presentations,

3   at least as I understand them to be, but I think I

4   understand the issues with respect to this one, unless

5   there's something further that the parties want to go to.

6   So then that takes us to the "indication of

7   respective resolution level."

8   MR. HAMELINE: Again, this may be semantics.

9   THE COURT: It is semantics.

10   MR. HAMELINE: It's always semantics when

11   you're doing this. That's the definition.

12   THE COURT: Right.

13   MR. HAMELINE: I stuck my foot in my mouth,

14   I'm sure, but the indication of respective resolution level

15   is just that. It's something that indicates or points out

16   or requires a respective resolution level.

17   It isn't necessarily data specifying the amount of

18   detail per unit area. It's the resolution level that the

19   processor is calling for and bringing that in.

20   THE COURT: But also is it not tied to the

21   hierarchical construction?

22   MR. HAMELINE: Yes, it is.

23   THE COURT: Their definition imports language

24   about the hierarchical structure. Your does not.

25   MR. HAMELINE: It does.

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1   THE COURT: But is there some meaningful, in
2   your perspective, difference?
3   MR. HAMELINE: I'm not sure. The database is
4   based on the hierarchical structure. There's no question
5   about that. We say it signifies a respective resolution
6   level.
7   The data block it's going to call for is in a
8   database in a hierarchical structure. I just think they're
9   overly -- they're overworking the definition here. I think
10   it can be much simpler.
11   The difference we have here is specifying the
12   amount of detail per unit area corresponding to a level of
13   resolution. It isn't in the patent that says that that's
14   what they are. They're calling out a resolution level.
15   They're quibbling, if you will.
16   THE COURT: Let me try my working to see if I
17   understand what the parties' view is.
18   When I'm talking about "indication" here, or when
19   the patent is talking about "indication," it is the
20   identification of a particular level of the hierarchical
21   structure in which data blocks are organized.
22   MR. WOO: I just didn't -- I wasn't able --
23   THE COURT: It is an indication -- excuse me.
24   "Indication" in this context is the identification
25   of a particular level of the hierarchical structure in which

65

1   data blocks are organized.
2   MR. WOO: Data blocks are?

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3   THE COURT: Organized.

4   MR. WOO: Organized.

5   THE COURT: That, it seems to me, is what

6   respective resolution level is anyway.

7   MR. HAMELINE: Again, I think that overworks

8   the language. I think it's simply indicating a respective

9   resolution level. It's pointing to a database and asking

10 for a respective resolution level.

11   Yes, it's a hierarchical database, but I'm not sure

12 why we're cluttering up all these other terms in connection

13 with what's a very straightforward statement.

14   I mean, to move ahead, if this is what we're going

15 to do, either for summary judgment or to instruct the jury,

16 I'm not sure that's helpful to a jury in terms of

17 understanding what this means. I think it's a very

18 straightforward statement in the context of the other

19 definitions that we're providing.

20   THE COURT: Well, it reemphasizes the concept

21 of hierarchical structure that we have earlier talked about.

22 Does it need to be there? I don't know.

23   First, we all aspire to elegance, but I will settle

24 for competence. Does this competently describe what we're

25 talking about in that level or that particular set of

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1   language?

2   MR. HAMELINE: I'm not sure it does, just

3   because I'm not sure I follow exactly what the direction is.

4   THE COURT: Well, hierarchical structure is

5   expressed as the resolution levels. That's the hierarchy

6   that I have been talking about so far.

7   MR. HAMELINE: Agreed.

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8   THE COURT: All right. I will reflect on this

9   a bit.

10   MR. WOO: I think that's fine, your Honor.

11   THE COURT: Next one?

12   MR. HAMELINE: Your Honor, the next one is

13   just simply summing up some of these definitions. We can

14   skip this.

15   The next one is again data corresponding to one or

16   more coordinates. Again, I don't see a reason to rebeat

17   that horse.

18   THE COURT: Right.

19   MR. HAMELINE: The next one is "local memory."

20   THE COURT: Right.

21   MR. HAMELINE: Again, let me turn to my notes

22   quickly here to make sure I'm not --

23   (Pause in proceedings.)

24   MR. HAMELINE: For us it's memory of a local

25   computer. I think as a contextual discussion for that, it's

                                                            67

1   memory which is essentially controlled by a local computer.

2   The difference between our definition and the

3   definition Google and Keyhole are representing appears to me

4   that their argument is that memory is physically, I will

5   import that word, part of the local computer, and that is

6   performing the steps of the recited method.

7   I don't even know why that's in there or what's

8   needed, but the physical part is the difference.

9   THE COURT: Why is that not an appropriate

10   level of detail for that language; that is to say, is in the

11   hardware of the local computer?

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12   MR. HAMELINE: So, your Honor, you're

13   addressing the first part, the physical part of the local

14   computer.

15   I think, you know, for example, we brought a

16   thumbdrive with us.

17   THE COURT: I'm sorry?

18   MR. HAMELINE: A thumbdrive, which is stuck in

19   the back and actually contains the PowerPoint. That's the

20   local memory. It's not physically -- you can pick it up and

21   walk around and plug it into something else. You can carry

22   it around with you, and it has the PowerPoint on it. I

23   would not say that that is physically part of the local

24   computer.

25   THE COURT: What if I were to say that, "Local

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1   memory" is memory easily accessible to the processor, either

2   because it is physically part of the processor or is

3   attached directly thereto, as distinct from memory of the

4   remote server from which data might be downloaded.

5   MR. HAMELINE: I think that's fine.

6   THE COURT: That captures your --

7   MR. HAMELINE: It captures the image.

8   THE COURT: -- thumbdrive?

9   MR. HAMELINE: While I'm here, I am not sure

10   that the local memory performs the steps of the recited

11   method. I think if we look at the method claimed here, it's

12   not necessarily performing steps. I think it's surplusage,

13   is my comment on it.

14   THE COURT: Why is that necessary when we're

15   talking about local memory?

16   MR. WOO: Well, the reason why it's necessary

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17   is to distinguish it against -- I think your Honor has hit

18   on the issue of we want to make sure that this is local, the

19   remote computer, as opposed to the one -- excuse me. The

20   local computer that's being used by the user that's running

21   the steps of the patented method, not some remote server

22   somewhere that may be --

23   THE COURT: But the remote server is doing the

24   same thing. It has a role described in the method as well.

25   MR. WOO: Has a distinct role, yes. It has a

                                                              69

1   role in the method, but it's a distinct role.

2   What we're talking about is the local computer

3   that's actually -- I mean, the problem -- I want to go

4   backwards.

5   The problem with Skyline's definition is that the

6   local computer just -- it's all relative. We don't know

7   what it's local to. I mean, are we talking about a local

8   computer that's here in this courtroom, or one that may be

9   close to the remote server?

10   THE COURT: But the definition I've just given

11   does not speak to local computer. It speaks to local memory

12   as being memory easily accessible to the processor, and I

13   think it ties it to the patent that is taught.

14   MR. WOO: That's the processor that's doing

15   the steps of providing -- the one that we see here outlined

16   as --

17   THE COURT: I do not know. I do not have any

18   other processor in mind. I do not think any of us has any

19   other processor in mind, do we?

20   MR. WOO: As long as that's clear. I suppose

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21   if that's clarified, that would be fine. In other words,

22   not the processor that may be running on the remote server

23   that has the database.

24   I mean clearly the contemplation here is that the

25   processor we're talking about is the one that this --

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1   THE COURT: It's the client computer in this

2   patent.

3   MR. WOO: Correct.

4   THE COURT: All right.

5   MR. WOO: So with that modification, I think

6   that probably would be okay.

7   THE COURT: All right.

8   "First data block."

9   MR. HAMELINE: Yes.

10   Your Honor, I think the distinction here is when

11   you think of the method or the process, which is, we both

12   agree, that to infringe, and this a comprising claim, that

13   to infringe, at some point in the process the computer has

14   to call for local memory a first data block which provides

15   what we refer to as a lower resolution level, and then

16   higher resolution levels are streamed or downloaded to a

17   computer, providing the higher-resolution image. We don't

18   disagree with that.

19   What we disagree with is this definition that seems

20   to require that every time a new pair of coordinates, or

21   coordinates or subcoordinates, is called out, that that

22   process has to happen again. That is not what the patent

23   says.

24   The patent says that as you move through the

25   terrain, you may call for the first data block for a certain

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1   coordinate from what's called the server, the remote

2   computer. It isn't -- because it does that, it doesn't then

3   not infringe. It's a comprising claim, and it's a process

4   of talking about a first data block.

5   THE COURT: Let me see if -- this is a little

6   different from your coordination concept that I was trying

7   to deal with in a hierarchy before, but let me try this one

8   on you.

9   The "first data block" is the data block at the

10 lowest resolution available to the cache manager

11 corresponding to a particular set of coordinates. If that

12 block is not at the requested resolution level, it will be

13 followed by blocks of increasing resolution up to the

14 requested level. When a first block is one of the number

15 requested at the same resolution level, it is the block

16 corresponding to the last coordinates provided.

17   Now, it seems to me that that way of speaking to

18 firstness, the concept of firstness, captures the process

19 without talking, necessarily, about being stored in the

20 local memory, the first block stored in the local memory.

21   MR. HAMELINE: I think I understood the first

22 half of your definition. I'm not sure I followed the second

23 half. I think I was just trying to write and not write fast

24 enough.

25   THE COURT: Let me try it again. I will read

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1   it again and let you respond to it.

2   The "first data block" is the data block at the

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3   lowest resolution availably to the cache manager

4   corresponding to a particular set of coordinates. If that

5   block is not at the requested resolution level, it will be

6   followed by blocks of increasing resolution up to the

7   requested level. When a first block is one of a number

8   requested at the same resolution level, it is the block

9   corresponding to the last unit provided. Which basically

10   may be the first and last block, but something has to be

11   first.

12   MR. HAMELINE: I agree, your Honor.

13   The concept of first in a process doesn't mean that

14   every time you move to a coordinate that's the first. It

15   just means in this process there is at some point, or there

16   isn't infringement, at some point --

17   THE COURT: But firstness then, going to the

18   initial sentence of this, is the lowest resolution available

19   to the cache manager, and that does tie back into the

20   hierarchy.

21   MR. HAMELINE: Hm-hmm.

22   THE COURT: And here I am going back to the

23   specifications, which really talk in terms of sequencing.

24   MR. HAMELINE: I'm not sure it's the lowest

25   resolution available to the cache manager.

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1   It's a resolution level available to the cache

2   manager for those coordinates, and then if that is not at

3   the required resolution level, additional blocks are

4   streamed.

5   THE COURT: So let's look at column 3, line 16

6   through 23.

7   The processor first downloads a block with a low

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8   level of resolution, which requires less data volume per

9   area unit. Afterwards, if available bandwidth... blocks

10   which cover specifically from a higher resolution.

11   So it starts with a lower resolution, and then

12   afterwards blocks which cover the specific area from a

13   higher resolution level are downloaded.

14   Similarly, you look at lines 40 and 41,

15   "Preferably, when the processor requires a number of blocks,

16   the first block sent is the block of the lowest level. If

17   two blocks of the same level are required, the one which is

18   requested last is sent first."

19   MR. HAMELINE: I think, your Honor, when you

20   were reading column 3, line 16, this refers to the

21   downloading; that is, the processor first downloads a block

22   with a low level of resolution.

23   THE COURT: But we're talking about the first

24   data block.

25   MR. HAMELINE: Right.

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1   The first data block in the claim is a data block

2   in local memory.

3   THE COURT: Let me see.

4   MR. HAMELINE: So if I look -- I'll stop.

5   THE COURT: Let me just look at these a bit

6   more.

7   If you go down to column 16.

8   MR. WOO: Column 16?

9   THE COURT: Column 16, lines 36 through 44,

10   which calls out, "Providing the renderer with a first data

11   block which includes data corresponding to the one or more

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12   coordinates from a local memory."

13   Similarly, the same kind of thing is talked about,

14   I guess in column 18, lines 20 and 24 through 30, which talk

15   about the first data block coming from a local memory.

16   Now, I suppose that it suggests that I really

17   should not merely say the data block at the lowest

18   resolution available to the cache manager. Although that, I

19   think, necessarily would be local memory, or else why would

20   you stream stuff in?

21   MR. WOO: That's correct, your Honor, but the

22   invention and what -- I am looking at what claim 1 in

23   column 16 is, that at some point you're going to have

24   downloaded data blocks. You're going to have one in your

25   local memory.

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1   For example, if you visit Boston Harbor repeatedly,

2   you start with that. If that data block from local memory

3   is not at the correct resolution level that you're calling

4   out for, the local memory will provide that to the

5   processor/renderer, whatever, and provide the image.

6   Meanwhile, the higher resolution data blocks are

7   being streamed to provide you the resolution.

8   THE COURT: But what does that mean then

9   for -- perhaps I've been in this definition a bit too --

10   well, I'm not sure I have.

11   Take the first. The first data block is the data

12   block at the lowest resolution available to the cache

13   manager corresponding to a particular set of coordinates.

14   MR. HAMELINE: Actually, it would be the

15   closest data block in the cache manager to the resolution

16   level being requested, not the lowest; because since it's

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17   already there, you don't have the problem of streaming and

18   the time constraints. It's in your local memory. You just

19   call it up and display it. That's the essence of the

20   invention, is that -- if you had a CD-ROM, you had all this

21   information loaded in, you wouldn't have the constraint of

22   streaming this over your communication work or over the

23   Internet.

24   THE COURT: Then why isn't that closer to what

25   the defendant is proposing, that is, "The data block stored

                                                                76

1   in local memory that is the first data block to be provided

2   to the renderer in response to the coordinates in the

3   terrain and the indication of a respective resolution level

4   received..."

5   MR. HAMELINE: I'm not disagreeing that that

6   generally is what we're talking about here. It's just that

7   the way that this is phrased, is that every time you come

8   upon -- this is a comprising claim -- that every time you

9   come upon a new coordinate, you don't have to go through the

10   same process for there to be infringement.

11   THE COURT: I'm sorry. I was distracted for

12   just a second. I want to make sure that I understand what

13   you are saying here.

14   MR. HAMELINE: So when they say that the first

15   data block to be provided to the renderer in response to the

16   coordinates in the terrain, it isn't that every time a new

17   coordinate in the terrain is called out, terrain is called

18   out, that there has to be something in cache manager or

19   local memory that is then provided to the processor or the

20   renderer and displayed. It is that in this process the

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21   first data block is -- at some point in this process you

22   will come to a situation where there is something in the

23   cache manager which is provided.

24   So it's a difference, if you will, between a first

25   data block and the first data block.

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1   THE COURT: Okay, but let me just deal with

2   the difference between the two competing -- not "competing,"

3   but two different ways of expressing it that are found in my

4   proposed language.

5   First data block is the data block at the lowest

6   resolution available to the cache manager corresponding to a

7   particular set of coordinates.

8   Now, the problem about that, I suppose, is we're

9   making assumptions that it is going to come out of local

10   memory. It may not, I suppose. It may come out of --

11   MR. WOO: It may in the operation of the

12   software, but the patent claims are directed to this

13   snapshot in time, and the snapshot in time is providing a

14   first data block. And the first in this instance indicates

15   primacy.

16   The patent, again in context, is all about pulling

17   the first one from the local memory because it's faster, and

18   the way you get that speed and ensure that you have

19   something to show the viewer, is that you have this great

20   big map that is at low resolution of maybe the whole world

21   or the United States or something. So that any place that

22   you're going to be interested in seeing, you're likely to

23   have something to show. You pull that first data block from

24   your local memory, and then you stream the rest of them from

25   the remote server somewhere that has that hierarchical

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1   database in there.

2   So I think that rather than saying that the first

3   data block is of the lowest resolution to be accessed by the

4   cache manager, it's the first to be provided to the cache

5   manager, and I think that's the --

6   THE COURT: Do you have to include, "First to

7   be provide to the cache manager from the" --

8   MR. WOO: Local memory.

9   THE COURT: -- local memory?"

10   MR. WOO: Yes, because then the patent tells

11   us if it's not at the level of resolution that the renderer

12   says it ought to be or wants, then the cache manager is to

13   go off -- not "go off," but the cache manager has to request

14   additional data blocks and get them. And because they are

15   in the hierarchical database, they will be of higher

16   resolution.

17   THE COURT: Let me, just as a practical

18   matter, understand how this might work.

19   Let's assume that I know what I've got in my local

20   memory, which is at a fairly low degree of resolution, and I

21   know at the outset that really what I would like is a higher

22   resolution. The way in which the patent would function is I

23   could type in this higher resolution, let's assume I'm

24   giving my instructions, but the first data block would be

25   whatever was in the local memory; and without telling me,

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1   the apparatus would get me to the resolution I want, but it

2   would start with whatever is in local memory.

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3   That's your theory of how this works?

4   MR. WOO: Correct, your Honor.

5   The idea is that this invention is to -- the

6   patented claimed invention is to provide it first from local

7   memory because this can come across quicker, and then while

8   you go out -- and you have something you see, instead of

9   having a blank screen or a frozen screen -- and, meanwhile,

10   you collect the higher resolution images off the database.

11   And to ensure that you have something to look at,

12   you have a very low resolution image to start with that

13   encompasses a very large area. So, again, the airline map

14   with the dot of Boston versus the Thomas Guide that shows

15   Boston Harbor and the courthouse.

16   THE COURT: What is the Thomas Guide?

17   MR. WOO: It's a big thick compendium of maps

18   that are all detailed maps that illustrate just a discrete

19   area, such as Boston metro.

20   THE COURT: All right.

21   MR. WOO: Sorry.

22   THE COURT: All right.

23   MR. WOO: It's an analogy.

24   THE COURT: It's just a phrase I'm not

25   familiar with.

                                                              80

1   MR. WOO: They're very good maps.

2   THE COURT: I'll be out looking for them soon.

3   (Laughter.)

4   THE COURT: So, Mr. Hameline, let me try this

5   one.

6   The first data block is the data block available to

7   the cache manager from local memory corresponding to a

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8   particular set of coordinates.

9   MR. HAMELINE: I think that's true.

10   I think it's actually not necessarily the cache

11   manager. It's just local memory. I don't think it needs to

12   be the cache manager. The way it's described in the patent

13   claim is it says, "Providing the renderer" --

14   (Reporter interrupts.)

15   MR. HAMELINE: I'm sorry.

16   "Providing the renderer with a first data block,

17   which includes data corresponding to one or more

18   coordinates" --

19   (Reporter interrupts.)

20   MR. HAMELINE: --"from a local memory."

21   I'm sorry.

22   THE COURT: So --

23   MR. WOO: That was missing the idea of first.

24   THE COURT: But the first data block is the

25   data block, you would say, first available to the cache

                                                        81

1   manager. Is that what you are saying?

2   MR. WOO: First to be provided.

3   THE COURT: First to be provided to the

4   renderer.

5   The reason you use the renderer is you have a

6   broader view of renderer.

7   MR. WOO: Correct.

8   THE COURT: All right.

9   I will look at this some more.

10   MR. HAMELINE: I think we have really one

11   more, your Honor, and I'm not even sure that is disputed.

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12   THE COURT: "Communication link."

13   MR. HAMELINE: "Communication link," and I

14   don't think there is disagreement on that.

15   The "processor," I'm not sure there is a

16   disagreement on that.

17   So I will -- instead of wasting time and arguing

18   those, I guess I'll let the defendants tell us if there is a

19   distinction there or whether that's something we, through

20   the process, agree with.

21   MR. WOO: We don't disagree so much as we

22   don't propose an alternative, just like they haven't

23   proposed alternatives to some of our proposed constructions.

24   I think the way to handle that would be to adopt both sides'

25   unopposed constructions.

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1   If Mr. Hameline is through, I do have a couple of

2   more.

3   THE COURT: You have, Mr. Hameline, passed up

4   your slides.

5   Do you have slides as well?

6   MR. WOO: We do, your Honor. They're actually

7   in electronic form.

8   THE COURT: I'll tell you what would be

9   helpful. I will take it any way I can get it, but it would

10   be helpful to have, even in slide form for me, just

11   something I can access in a variety of different

12   alternatives.

13   MR. WOO: We will print out the ones we've

14   covered today, but meanwhile also supply your Honor with

15   electronic copies. It's interactive.

16   THE COURT: Sure.

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17   MR. WOO: We have a copy for opposing counsel

18   as well.

19   If it please the Court, we will hand those to your

20   clerk right now.

21   (Whereupon the Court and court reporter confer.)

22   MR. WOO: So the only other issue that we want

23   to take up with your Honor today -- really there are two

24   more, the first of which is the idea of renderer in the

25   context with the rest of the patent language.

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1   We've cited cases, your Honor, that show that

2   sometimes if you have, to give meaning to the entire claim,

3   you have to not just specify the construction of a

4   particular term, but use the term in context, as your Honor

5   did -- I think there was a recent case that your Honor did

6   involving light fixtures that you did that in.

7   THE COURT: That's one of the sad aspects of

8   spending any amount of time in the bench. It doesn't --

9   MR. WOO: -- ring a bell?

10   THE COURT: -- turn on a light for me.

11   (Laughter.)

12   MR. WOO: It's the Schonbek case, I believe,

13   your Honor, and it's cited in our briefs.

14   So the only point -- we've already talked about

15   what a renderer is and why it's important to draw a box

16   about its function, because that's the only way to tell

17   whether you're inside or outside the scope of this patent.

18   The other thing I wanted to point out and why the

19   context is important is because the language is written in

20   the passive voice. So I think it's useful to the trier of

21 fact, and to clarify the scope of this invention, to put

22 this more in the active voice and to show that what was

23 talked about in terms of receiving from the renderer is that

24 there is an object other than the renderer receiving from

25 the renderer the coordinates and the resolution level and so

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1   forth.

2   That context I think is clear from the claim

3   language itself, and that's the only thing we would add to

4   the construction of renderer at this time.

5   And then the last thing I want to mention, your

6   Honor, is that we've talked about all the claim terms today

7   in the context of claim 1. Let me just touch briefly on

8   claim 12, the only other asserted claim.

9   Essentially, this is the same as claim 1 but in

10 hardware form. Basically, it's just claims in terms of

11 hardware that runs the method we've been talking about.

12   You will see that the components are very generic.

13 There's a local memory. There's a communication link, which

14 can be a modem or something like that, and there is a

15 processor, and that would describe like 99 percent of every

16 computer ever made.

17   So the only thing that distinguishes this alleged

18 invention from the multitude of the prior art would be the

19 fact that it runs this particular method that's laid out in

20 claim 1, and I think that Skyline agrees with us that the

21 same terms that are used throughout claim 1, to the extent

22 that they appear in claim 12, are equally applicable to

23 claim 12.

24   I do want to mention one thing about the processor,

25 however.

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1   In Figure 5, the processor is shown as Item 20. I

2   have this on this foam board here, that big rectangular

3   that's drawn around, the software objects within it

4   (indicating).

5   So where the claim says, A processor which receives

6   from the renderer, that means that an object running on the

7   processor other than the renderer receives from the renderer

8   the coordinates and the indication of the resolution level.

9   And, as you can see, that's exactly what's going on here,

10   and that's all there is to claim 12.

11   THE COURT: Let me just try to absorb this.

12   (Pause in proceedings.)

13   THE COURT: All right. I understand.

14   Anything else?

15   MR. WOO: I believe not, your Honor.

16   THE COURT: Okay.

17   I have spent a certain amount of time on this

18   already, and I hope to be able to get something out

19   relatively promptly. And I think that it makes the most

20   sense to wait and see what I have to see where we go next

21   with this. So we will schedule something promptly after the

22   memorandum regarding claim construction is issued here.

23   I understand there's a coastal problem, but I would

24   appreciate the slides as quickly as you can get them.

25   MR. WOO: We'll get them to you right away,

☐

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1   your Honor.

2   One other housekeeping issue?

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3   THE COURT: Yes.

4   MR. WOO: We did submit a surreply brief

5   because they've raised things for the first time.

6   THE COURT: I read everything that comes

7   before me, and you will see how I resolve the issues.

8   MR. WOO: Very well, your Honor.

9   Thank you.

10   THE COURT: So rather than ruling things out

11 immediately, I don't, but I will sort through them and

12 decide what I think is relevant.

13   MR. WOO: Very well, your Honor.

14   THE COURT: All right.

15   We'll be in recess.

16   THE CLERK: All rise.

17   Court is in recess.

18   (Proceedings adjourned.)

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                    C E R T I F I C A T E

        I, James P. Gibbons, Official Court Reporter for

    the United States District Court for the District of

    Massachusetts, do hereby certify that the foregoing pages

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are a true and accurate transcription of my shorthand notes

taken in the aforementioned matter to the best of my skill

and ability.

JAMES P. GIBBONS, CSR, RPR, RMR
Official Court Reporter
1 Courthouse Way, Suite 7205
Boston, Massachusetts 02210
(617) 428-0402